200 MPH AIR CONDITIONING

SINCE Vintage Air 1976

1969-70 MUSTANG

w/ FACTORY AIR GEN IV

554170

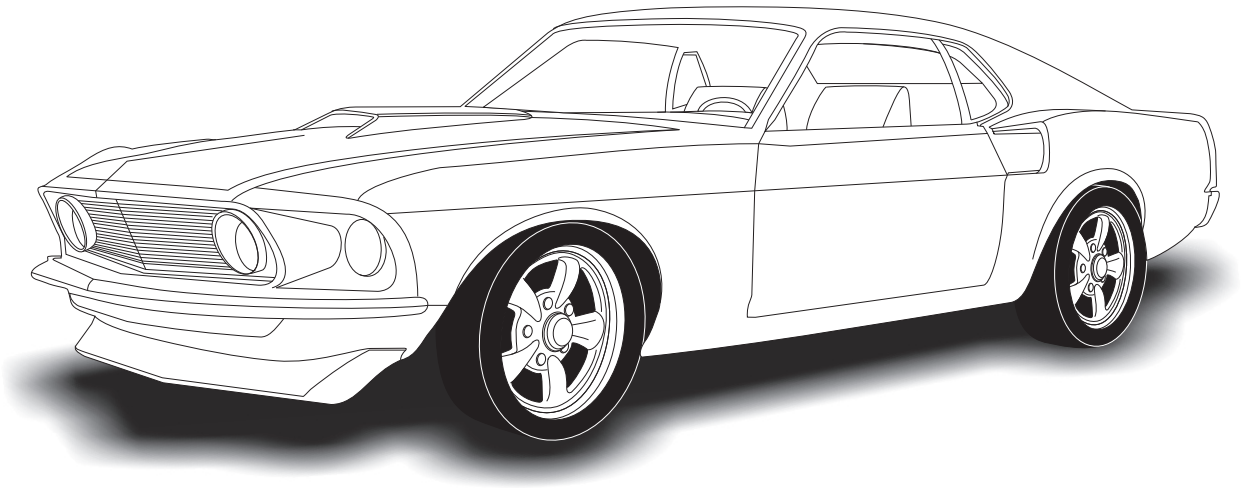

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Table of Contents

PAGES

1. COVER
2. TABLE OF CONTENTS
3. PACKING LIST/ PARTS DISCLAIMER
4. INFORMATION PAGE
5. WIRING NOTICE
6. ENGINE COMPARTMENT
   FIGURE 1
7. PASSENGER COMPARTMENT
   FIGURES 2 & 3
8. DEFROST DUCT / FRESH AIR CAP INSTALLATION & HOSE ADAPTER INSTALLATION
   FIGURES 4 & 5
9. EVAPORATOR INSTALLATION
   FIGURES 6 & 7
10. FIREWALL COVER INSTALLATION
    FIGURES 8 & 8a
11. CENTER LOUVER INSTALLATION
    FIGURES 9 & 9a
12. DRAIN HOSE INSTALLATION & LUBRICATING O-RINGS, STANDARD HOSE KIT & MODIFIED A/C HOSE KIT
    FIGURES 10 & 11
13. HEATER HOSE & HEATER CONTROL VALVE INSTALLATION
    FIGURE 12
14. A/C & HEATER HOSE ROUTING
    FIGURE 13
15. FINAL STEPS & GLOVE BOX INSTALLATION
    FIGURES 14 & 14a
16. DUCT HOSE ROUTING
    FIGURE 15
17. EVAPORATOR HARD LINE AND BRACKET INSTALLATION
    FIGURE 16
18. WIRING DIAGRAM
19. GEN IV WIRING CONNECTION INSTRUCTIONS
20. OPERATION OF CONTROLS.
21. TROUBLE SHOOTING
22. TROUBLE SHOOTING CONT.
23. EVAPORATOR KIT PACKING LIST

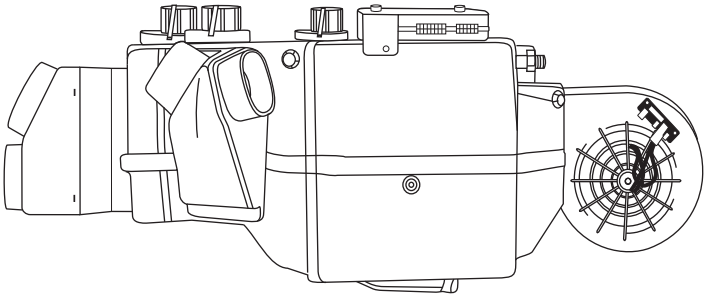
EVAPORATOR KIT PACKING LIST

EVAPORATOR KIT
554170

No.	QTY.	PART No.	DESCRIPTION
1.	1	763069	69-70 MUSTANG EVAP. SUB CASE
2.	1	785169	1969-70 MUSTANG w/AC GEN IV ACC. KIT

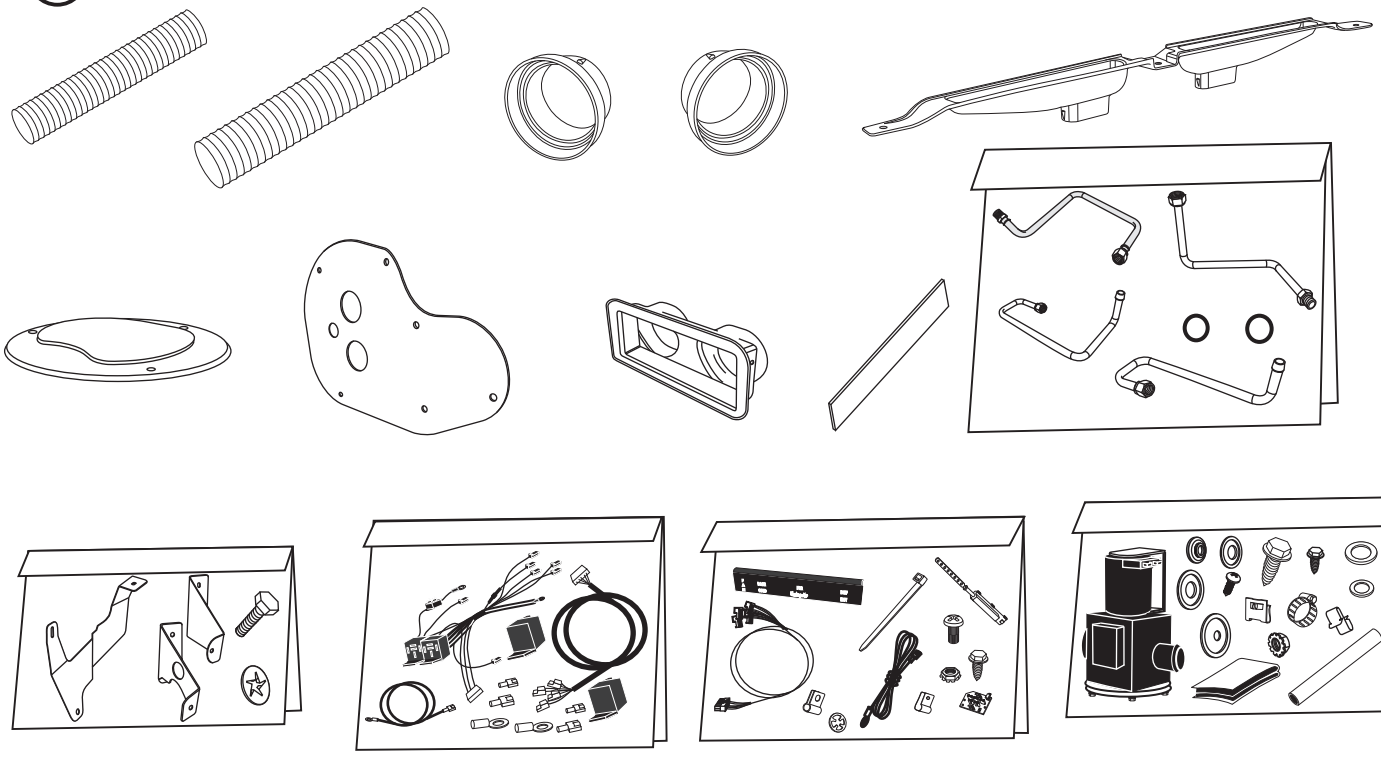
***** BEFORE BEGINNING INSTALLATION OPEN ALL PACKAGES AND CHECK CONTENTS OF SHIPMENT. PLEASE REPORT ANY SHORTAGES DIRECTLY TO VINTAGE AIR WITHIN 15 DAYS. AFTER 15 DAYS, VINTAGE AIR WILL NOT BE RESPONSIBLE FOR MISSING OR DAMAGED ITEMS.***

①



69-70 MUSTANG
EVAP. SUB CASE
763069

②



ACCESSORY KIT
785169

NOTE: IMAGES MAY NOT DEPICT ACTUAL PARTS AND QUANTITIES. REFER TO PACKING LIST FOR ACTUAL PARTS AND QUANTITIES

1969-70 MUSTANG
w/ FACTORY AIR

IMPORTANT NOTICE-PLEASE READ

FOR MAXIMUM SYSTEM PERFORMANCE VINTAGE AIR RECOMMENDS THE FOLLOWING:

THIS KIT DOES NOT CONTAIN HEATER HOSE. YOU MUST PURCHASE 8 FEET OF 5/8" DIA. HEATER HOSE FROM VINTAGE AIR(31800-VUD) OR FROM YOU LOCAL PARTS RETAILER

SAFETY SWITCHES:

YOUR VINTAGE AIR SYSTEM IS EQUIPPED WITH A BINARY PRESSURE SAFETY SWITCH. A BINARY SWITCH (11078-VUS) DISENGAGES THE COMPRESSOR CLUTCH IN CASE OF EXTREME LOW PRESSURE CONDITION (REFRIGERANT LOSS) OR EXCESSIVELY HIGH HEAD PRESSURE (406 PSI), TO PREVENT COMPRESSOR DAMAGE OR HOSE RUPTURE. A TRINARY SWITCH (11076-VUS) COMBINES HI/LO PRESSURE PROTECTION WITH AN ELECTRIC FAN OPERATION SIGNAL AT 254 PSI., AND MAY BE SUBSTITUTED FOR USE WITH ELECTRIC CONDENSER FANS. COMPRESSOR SAFETY SWITCHES ARE EXTREMELY IMPORTANT SINCE AN A/C SYSTEM RELIES ON REFRIGERANT TO CARRY LUBRICATION THROUGH THE SYSTEM.

SERVICE INFO:

ATTENTION: SYSTEM COMPONENTS: THE COMPRESSOR, EVAPORATOR, CONDENSER & DRIER ARE CAPPED. CAPS MAY BE UNDER PRESSURE WITH DRY NITROGEN; BE CAREFUL REMOVING CAPS. DO NOT REMOVE CAPS PRIOR TO INSTALLATION. REMOVING CAPS PRIOR TO INSTALLATION WILL CAUSE COMPONENTS TO COLLECT MOISTURE AND LEAD TO PREMATURE FAILURE AND REDUCED PERFORMANCE.

EVACUATE THE SYSTEM FOR 35-45 MINUTES WITH SYSTEM COMPONENTS (DRIER, COMPRESSOR, EVAPORATOR AND CONDENSER) AT A TEMPERATURE OF AT LEAST 85° F. ON A COOL DAY THE COMPONENTS CAN BE HEATED WITH A HEAT GUN OR BY RUNNING THE ENGINE WITH THE HEATER ON BEFORE EVACUATING. LEAK CHECK AND CHARGE TO SPECIFICATIONS.

VINTAGE AIR SYSTEMS ARE DESIGNED TO OPERATE WITH R134a or R-12 REFRIGERANT ONLY ! USE OF ANY OTHER REFRIGERANTS RISKS A DANGER OF FIRE AND COULD DAMAGE EITHER YOUR AIR CONDITIONING SYSTEM OR YOUR VEHICLE.

USE OF ANY OTHER REFRIGERANTS WILL VOID ALL WARRANTIES OF THE AIR CONDITIONING SYSTEM AND COMPONENTS. USE OF THE PROPER TYPE AND AMOUNT OF REFRIGERANT IS CRITICAL TO PROPER SYSTEM OPERATION. VINTAGE AIR RECOMMENDS OUR SYSTEMS BE CHARGED BY WEIGHT WITH A QUALITY CHARGING STATION OR SCALE.

REFRIGERANT CAPACITIES FOR VINTAGE AIR SYSTEMS

(FOR OTHER SYSTEMS, CONSULT MANUFACTURER GUIDELINES)

134a SYSTEM

CHARGE WITH 1.8 lbs.
(1lbs. 12ozs) OF REFRIGERANT

R-12 SYSTEM

CHARGE WITH 2.0 lbs. OF REFRIGERANT

LUBRICANT CAPACITIES: NEW COMPRESSOR - NO ADDITIONAL OIL NEEDED
USED COMPRESSOR - CONSULT VINTAGE AIR

IMPORTANT *WIRING* NOTICE-PLEASE READ

SOME VEHICLES MAY HAVE HAD SOME OR ALL OF THEIR RADIO INTERFERENCE CAPACITORS REMOVED. THERE SHOULD BE A CAPACITOR FOUND AT EACH OF THE FOLLOWING LOCATIONS:

1. ON THE POSITIVE TERMINAL OF THE IGNITION COIL
2. IF THERE IS A GENERATOR, ON THE ARMATURE TERMINAL OF THE GENERATOR
3. IF THERE IS A GENERATOR, ON THE BATTERY TERMINAL OF THE VOLTAGE REGULATOR

MOST ALTERNATORS HAVE A CAPACITOR INSTALLED INTERNALLY TO ELIMINATE WHAT IS CALLED 'WHINING' AS THE ENGINE IS REVVED. IF WHINING IS HEARD IN THE RADIO, OR JUST TO BE EXTRA CAUTIOUS, A RADIO INTERFERENCE CAPACITOR CAN BE ADDED TO THE BATTERY TERMINAL OF THE ALTERNATOR.

IT IS ALSO IMPORTANT THAT THE BATTERY LEAD IS IN GOOD SHAPE AND THAT THE GROUND LEADS ARE NOT COMPROMISED. THERE SHOULD BE A HEAVY GROUND FROM THE BATTERY TO THE ENGINE BLOCK, AND ADDITIONAL GROUNDS TO THE BODY AND TO THE CHASSIS.

IF THESE PRECAUTIONS ARE NOT OBSERVED, IT IS POSSIBLE FOR VOLTAGE SPIKES TO BE PRESENT ON THE BATTERY LEADS. THESE SPIKES COME FROM IGNITION SYSTEMS, CHARGING SYSTEMS, AND FROM TURNING SOME OF THE VEHICLE'S OTHER SYSTEMS ON AND OFF. MODERN COMPUTER OPERATED EQUIPMENT CAN BE SENSITIVE TO VOLTAGE SPIKES ON THEIR POWER LEADS, WHICH CAN CAUSE UNEXPECTED RESETS, STRANGE BEHAVIOR, AND MAY ALSO CAUSE PERMANENT DAMAGE.

VINTAGE AIR STRIVES TO HARDEN THEIR PRODUCTS AGAINST THESE TYPES OF ELECTRICAL NOISE, BUT THERE IS A POINT WHERE A VEHICLE'S ELECTRICAL SYSTEM CAN BE DEGRADED SO MUCH THAT NOTHING CAN HELP.

RADIO INTERFERENCE CAPACITORS SHOULD BE AVAILABLE AT MOST AUTO & TRUCK PARTS SUPPLIERS. THEY TYPICALLY ARE CYLINDRICAL IN SHAPE, A LITTLE OVER AN INCH LONG, A LITTLE OVER A HALF INCH IN DIAMETER, THEY HAVE A SINGLE LEAD COMING FROM ONE END OF THE CYLINDER WITH A TERMINAL ON THE END OF THE WIRE, AND THEY WILL HAVE A MOUNTING CLIP WHICH IS SCREWED INTO A GOOD GROUND ON THE VEHICLE. THE SPECIFIC VALUE OF THE CAPACITANCE IS NOT TOO SIGNIFICANT, IN COMPARISON TO IGNITION CAPACITORS THAT ARE MATCHED WITH THE COIL TO REDUCE PITTING OF THE POINTS.

- CARE MUST BE TAKEN WHEN INSTALLING THE COMPRESSOR LEAD, NOT TO SHORT IT TO GROUND. THE COMPRESSOR LEAD MUST NOT BE CONNECTED TO A CONDENSER FAN OR ANY OTHER AUXILIARY DEVICE. SHORTING TO GROUND OR CONNECTING TO A CONDENSER FAN OR ANY OTHER AUXILIARY DEVICE WILL CAUSE SEVERE DAMAGE TO THE ECU.
- WHEN INSTALLING GROUND LEADS ON GEN IV SYSTEMS, THE BLOWER CONTROL GROUND AND ECU GROUND MUST BE CONNECTED DIRECTLY TO THE NEGATIVE BATTERY POST.
- THE HEATER CONTROL VALVE IS A NORMALLY OPEN VALVE. IT MUST BE CONNECTED TO THE ECU TO BLOCK WATER FLOW IN AC MODE.

BEFORE STARTING THE INSTALLATION, CHECK THE FUNCTION OF THE VEHICLE (HORN, LIGHTS,ETC.) FOR PROPER OPERATIONS. STUDY THE INSTRUCTIONS, ILLUSTRATIONS, & DIAGRAMS.

ENGINE COMPARTMENT

REMOVE THE FOLLOWING:

- ☐ BATTERY (RETAIN).
- ☐ DRAIN RADIATOR
- ☐ EVACUATE THE A/C SYSTEM IF NECESSARY.
- ☐ OEM CONDENSER AND DRIER (DISCARD). SEE FIGURE 1 BELOW.
- ☐ OEM COMPRESSOR AND BRACKET (DISCARD). SEE FIGURE 1.
- ☐ OEM HEATER HOSES, A/C HOSES (DISCARD). SEE FIGURE 1.

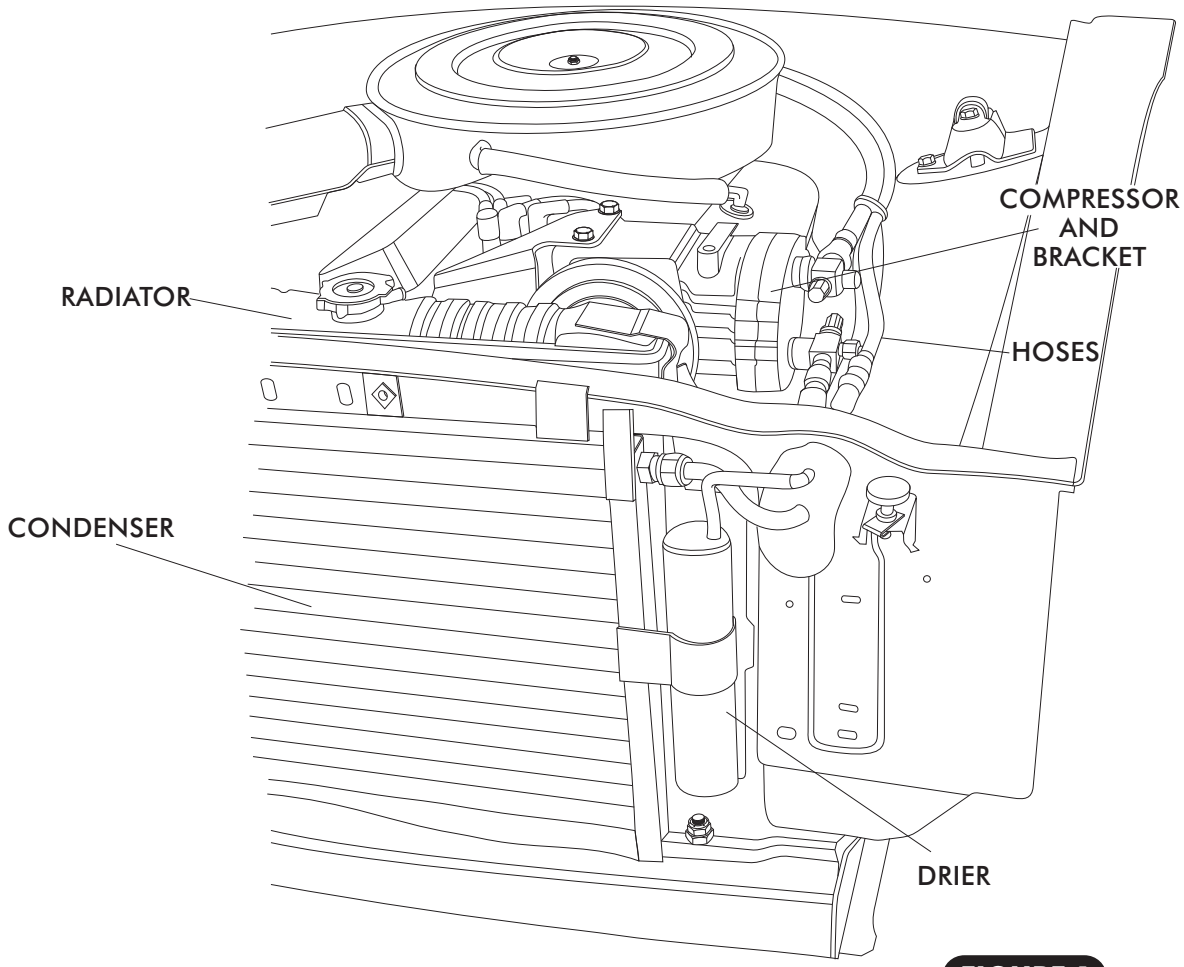


FIGURE 1

CONDENSER ASSEMBLY & INSTALLATION

- ☐ REFER TO SEPARATE INSTRUCTIONS INCLUDED WITH THE CONDENSER KIT TO INSTALL THE CONDENSER.
- ☐ BINARY SWITCH INSTALLATION (REFER TO CONDENSER INSTRUCTIONS)

COMPRESSOR & BRACKETS

- ☐ REFER TO SEPARATE INSTRUCTIONS INCLUDED WITH THE BRACKET KIT TO INSTALL THE COMPRESSOR BRACKET.

PASSENGER COMPARTMENT

NOTE: REMOVAL OF DASHBOARD REQUIRED TO INSTALL THE EVAPORATOR. VINTAGE AIR RECOMMENDS THAT YOU UTILIZE THE FACTORY SERVICE MANUAL WHEN YOU DISASSEMBLE AND REASSEMBLE THE DASHBOARD.

REMOVE THE FOLLOWING:

- ☐ REMOVE DASH PAD, INSTRUMENT PANEL, PASSENGER SIDE PANEL AND LOWER PASSENGER SIDE DASHBOARD (RETAIN SCREWS) SEE FIGURE 2.
- ☐ GLOVE BOX (RETAIN) SEE FIGURE 2.
- ☐ AC/HEATER/EVAPORATOR ASSEMBLY AND ALL RELATED DUCTING (DISCARD), RETAIN SCREWS. SEE FIGURE 3.
- ☐ CONTROL PANEL ASSEMBLY (RETAIN CONTROL PANEL) SEE FIGURE 2.
- ☐ REFER TO CONTROL PANEL CONVERSION KIT INSTRUCTIONS FOR INSTALLATION OF CONTROLS.
- ☐ REMOVE OEM DEFROST DUCT ASM SEE FIGURE 3.

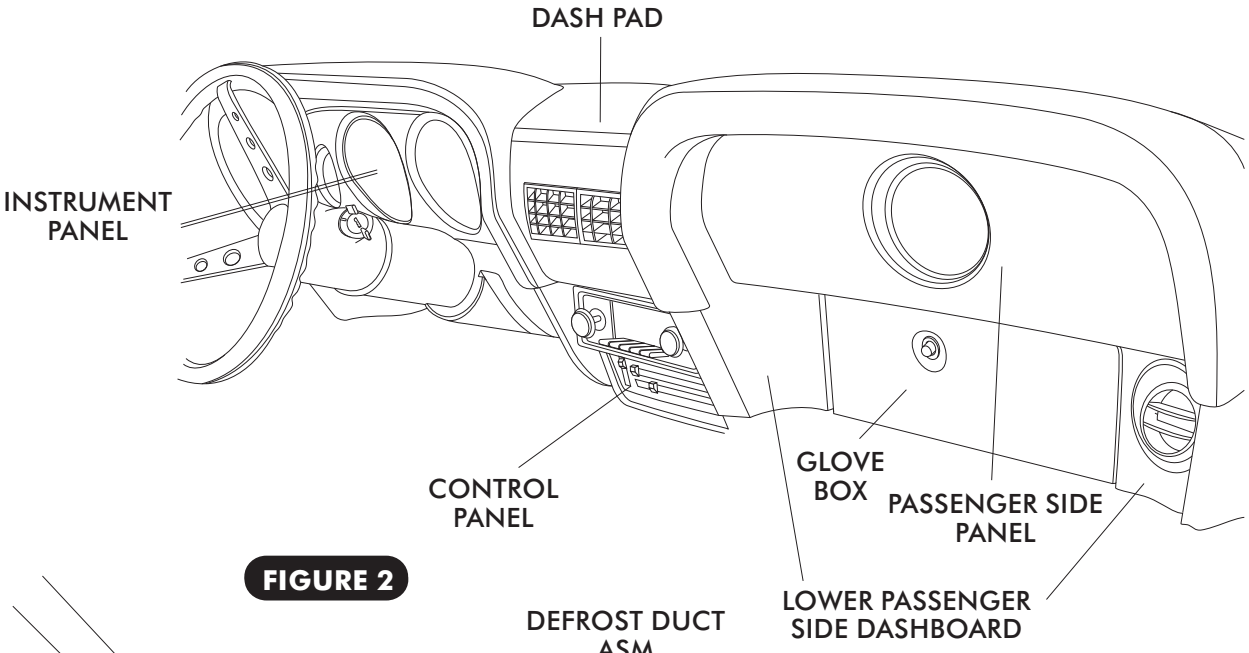


FIGURE 2

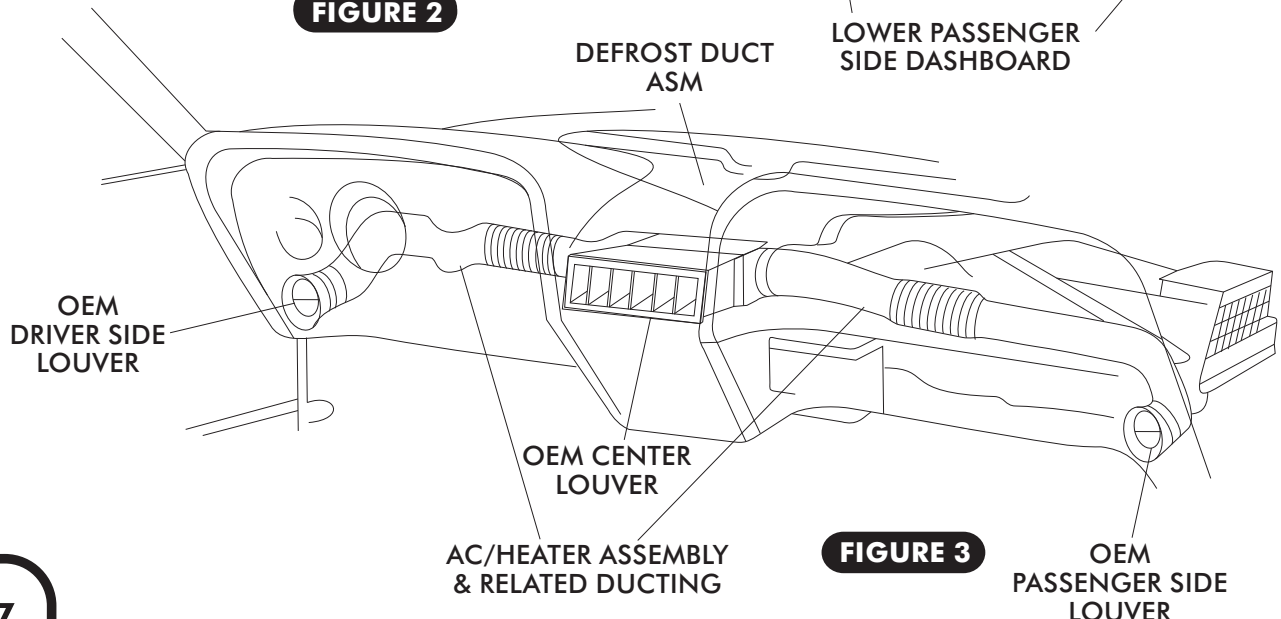


FIGURE 3

DEFROST DUCT/ FRESH AIR CAP INSTALLATION

- ☐ INSTALL DEFROST DUCT UNDER DASH AS SHOWN IN FIGURE 4 BELOW. SECURE USING OEM NUTS w/ (3) 3/16 SAE FLAT WASHERS.
- ☐ HOLD FRESH AIR CAP UNDER DASH AND MARK THE (3) MOUNTING HOLES.
- ☐ DRILL (3) 1/8" MOUNTING HOLES UNDER DASH.
- ☐ APPLY A 1/4" BEAD OF SILICONE AROUND THE BACK SIDE OF THE FRESH AIR CAP AS SHOWN IN FIGURE 4, BELOW.
- ☐ SECURE FRESH AIR CAP TO FRESH AIR HOLE USING (3) #10 X 1/2 SHEET METAL SCREWS AS SHOWN IN FIGURE 4 BELOW.

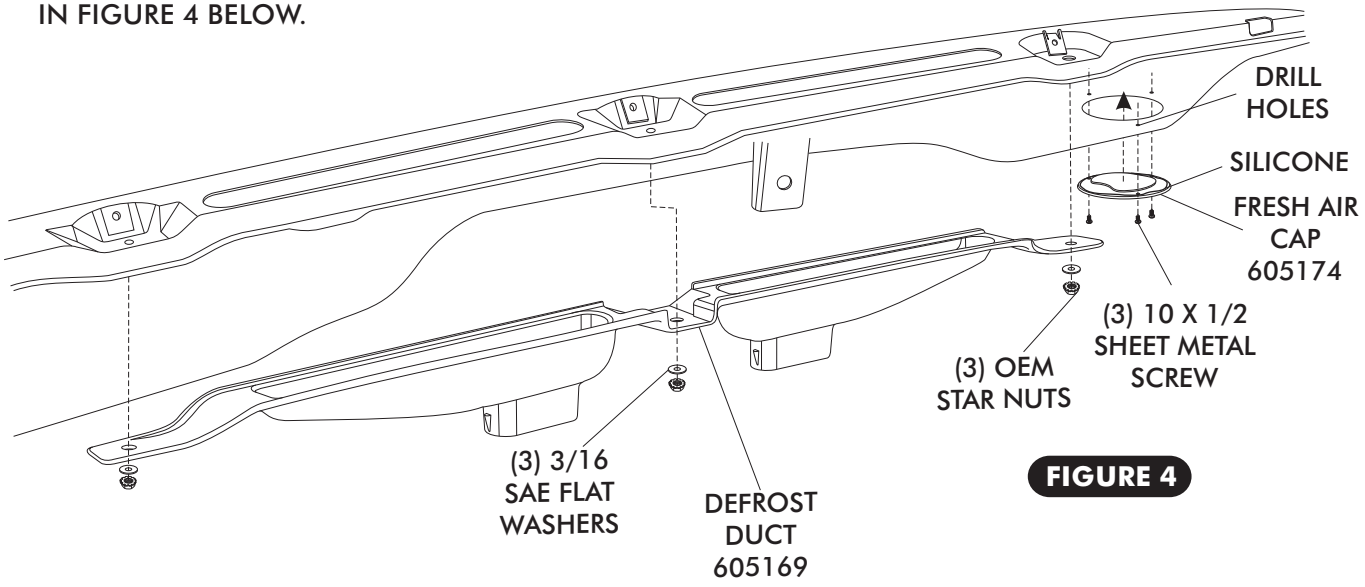


FIGURE 4

HOSE ADAPTER INSTALLATION

- ☐ INSTALL S-CLIPS ON HOSE ADAPTERS AS SHOWN IN FIGURE 5 BELOW.
- ☐ INSTALL DRIVER & PASSENGER SIDE HOSE ADAPTERS ON OEM LOUVERS. SEE FIGURE 5 BELOW

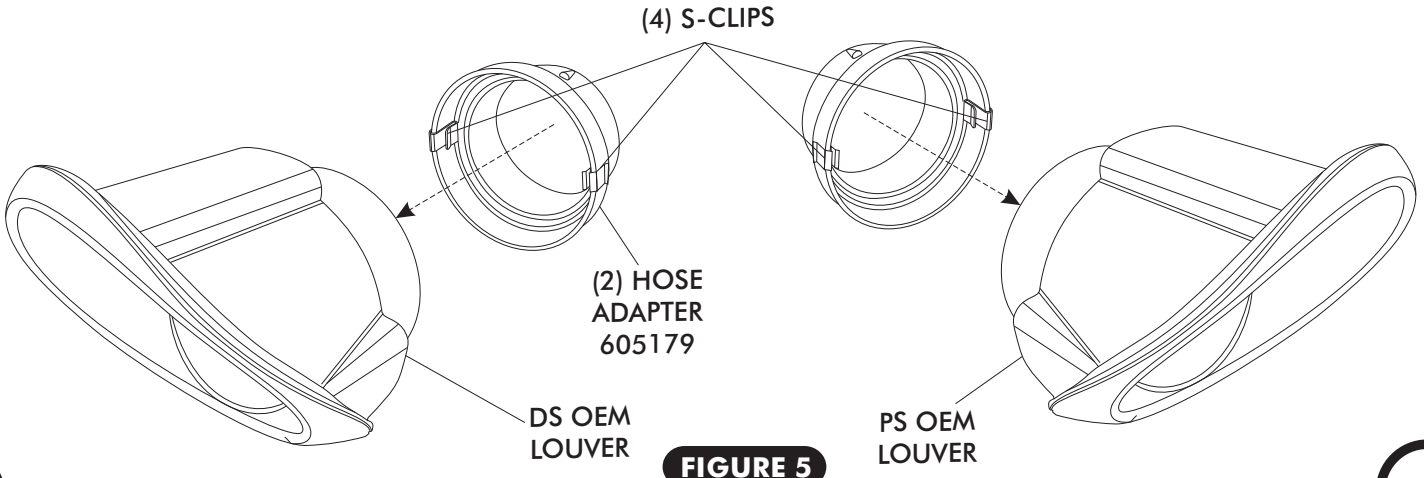


FIGURE 5

EVAPORATOR INSTALLATION

- ☐ ON A WORK BENCH, INSTALL EVAPORATOR REAR BRACKET AND HARDLINES WITH PROPERLY LUBRICATED O-RINGS. (SEE FIGURE 11, PAGE 12, AND FIGURE 16, PAGE 17.)
- ☐ INSTALL FRONT MOUNTING BRACKET ON EVAPORATOR USING (2) 1/4-20 X 1/2 HEX BOLTS AND TIGHTEN AS SHOWN IN FIGURE 6 BELOW.
- ☐ LIFT EVAPORATOR UNIT UP UNDER THE DASHBOARD SEE FIGURE 7. SECURE LOOSELY TO THE FIREWALL FROM THE ENGINE COMPARTMENT SIDE USING (2) 1/4-20 NUT AND WASHER, SEE FIGURE 7 BELOW.
- ☐ USING (2) #14 X 3/4 SHEET METAL SCREW w/ 1/4 FLAT WASHER SECURE THE FRONT EVAPORATOR MOUNTING BRACKET TO THE INNER COWL. SEE FIGURE 7 BELOW.
- ☐ VERIFY THAT EVAPORATOR UNIT IS LEVEL AND SQUARE TO THE DASH, THEN TIGHTEN ALL MOUNTING BOLTS. (***NOTE**: TIGHTEN THE BOLT ON FIREWALL FIRST, THEN THE FRONT MOUNTING BRACKET SCREWS.*)

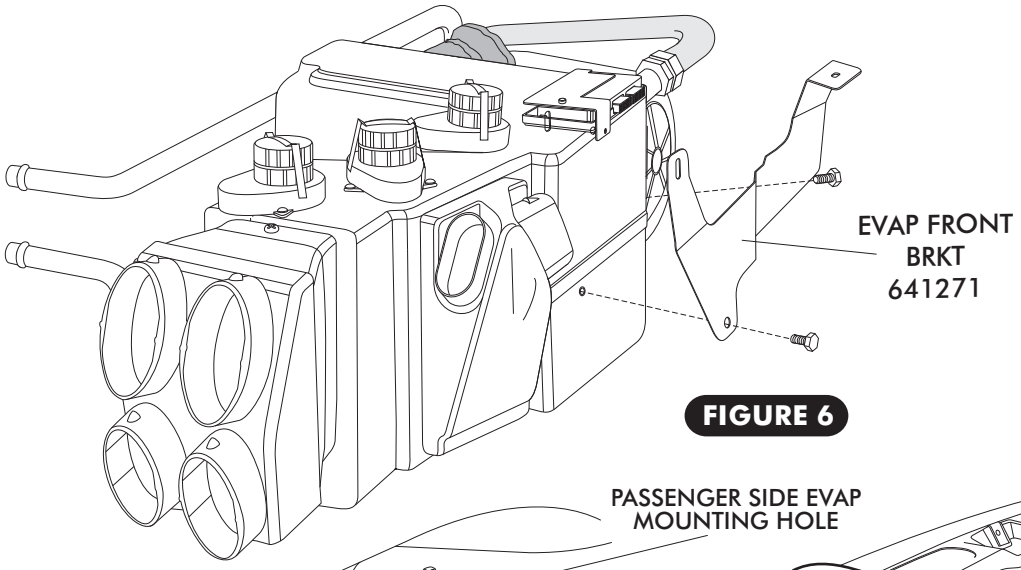


FIGURE 6

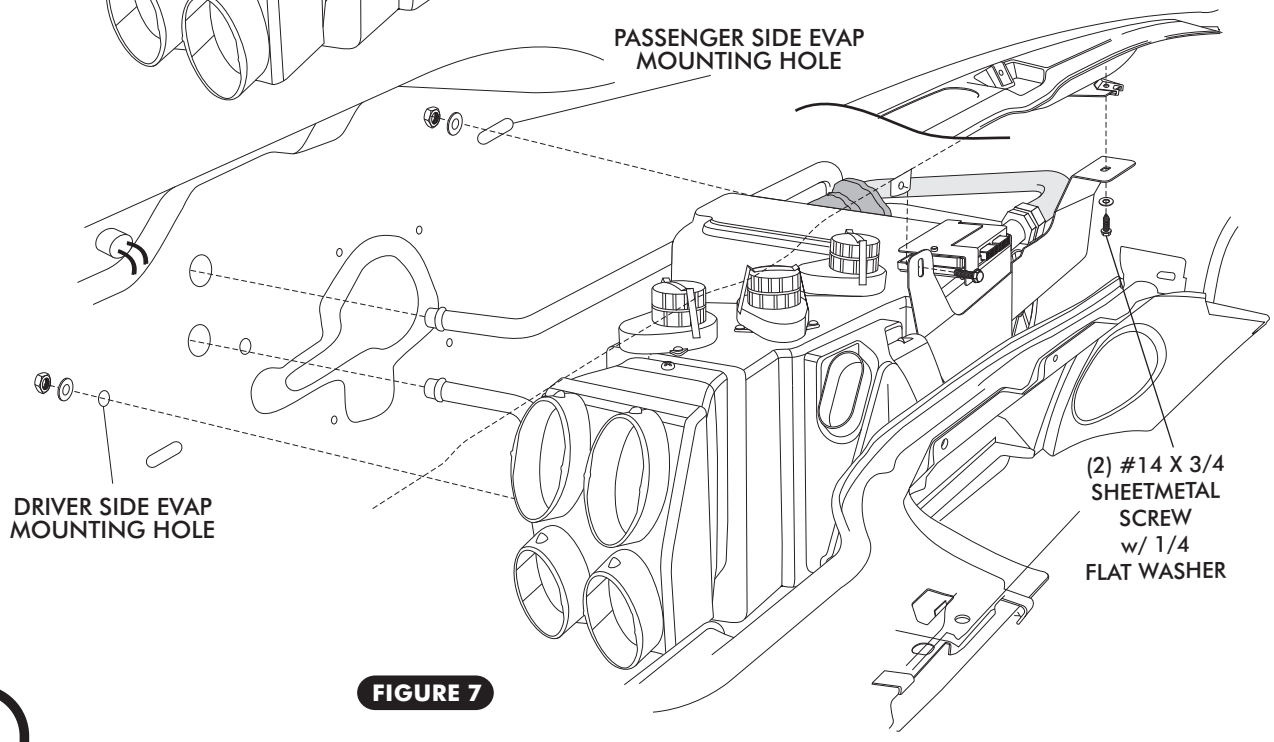


FIGURE 7

FIREWALL COVER INSTALLATION

- ☐ INSTALL (3) GROMMETS ON FIREWALL COVER AS SHOWN IN FIGURE 8, BELOW.
- ☐ APPLY A 1/4 BEAD OF SILICONE AROUND THE BACK SIDE OF THE FIREWALL COVER AS SHOWN IN FIGURE 8a, BELOW.
- ☐ SECURE FIREWALL COVER TO FIREWALL USING (6) #14 X 3/4 SHEET METAL SCREWS, SEE FIGURE 8, BELOW.(NOTE: FIREWALL COVER INSTALLS ON ENGINE SIDE OF FIREWALL.)

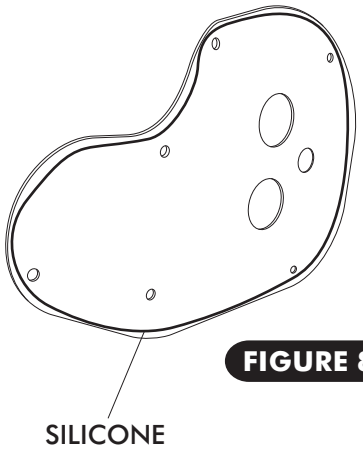


FIGURE 8a

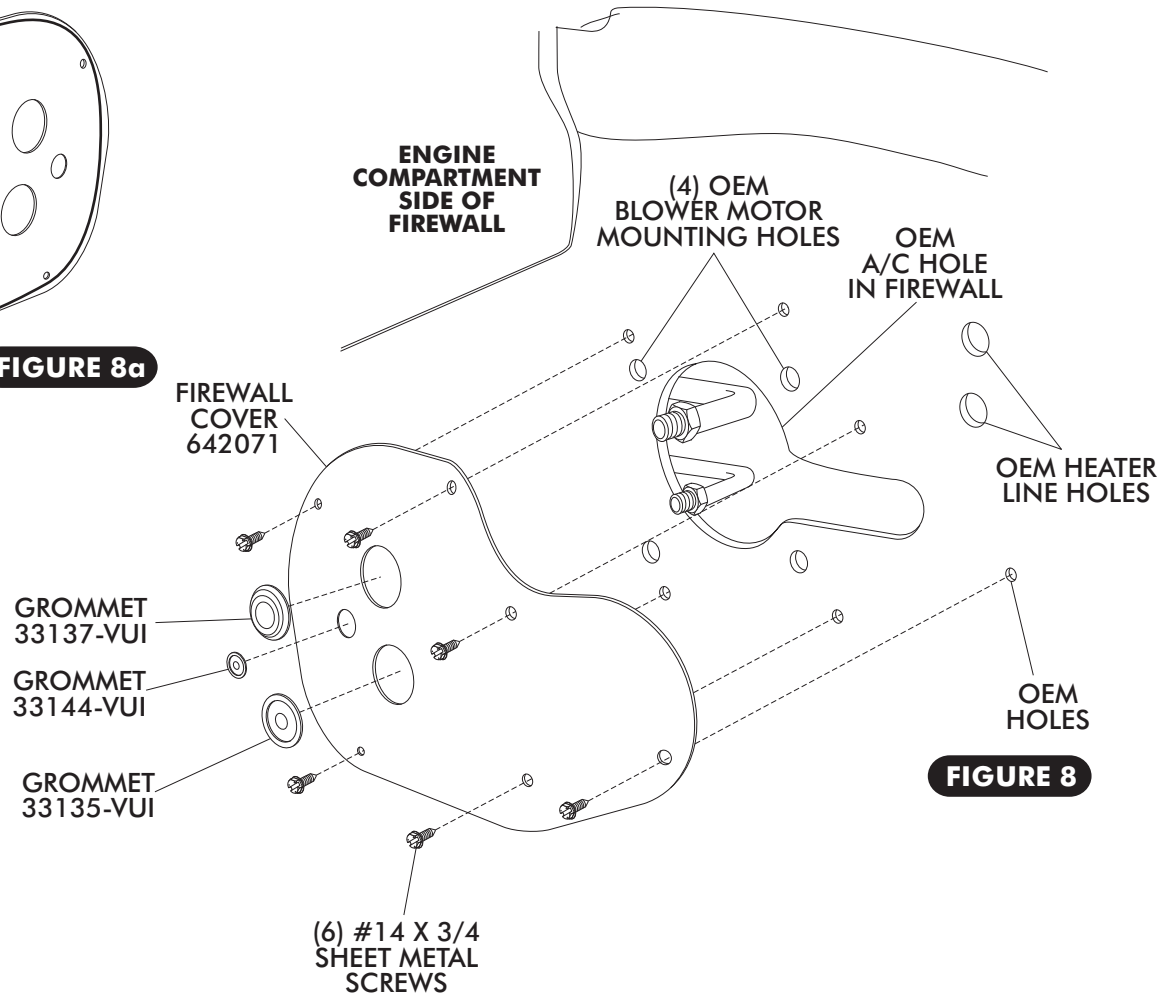


FIGURE 8

CENTER LOUVER INSTALLATION

- ☐ INSTALL (2) #8 J-NUTS OVER MOUNTING HOLES IN OEM CENTER LOUVER ASSEMBLY AS SHOWN IN FIGURE 9a.
- ☐ INSTALL 1/2 X 20 FOAM AROUND CENTER LOUVER HOSE ADAPTER AS SHOWN IN FIGURE 9.
- ☐ INSTALL CENTER LOUVER AND CENTER LOUVER HOSE ADAPTER IN DASH AS SHOWN IN FIGURE 9 BELOW, SECURE HOSE ADAPTER TO CENTER LOUVER USING (2) #8 X 1/2 PAN HEAD SCREWS AS SHOWN IN FIGURE 9 BELOW.
- ☐ REINSTALL DASH.

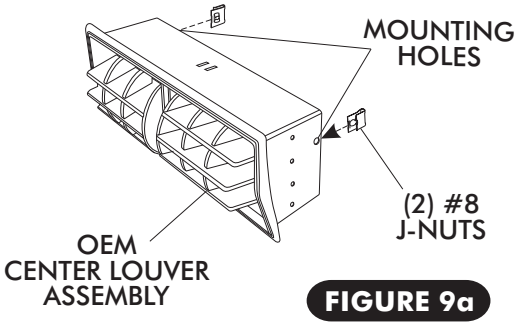


FIGURE 9a

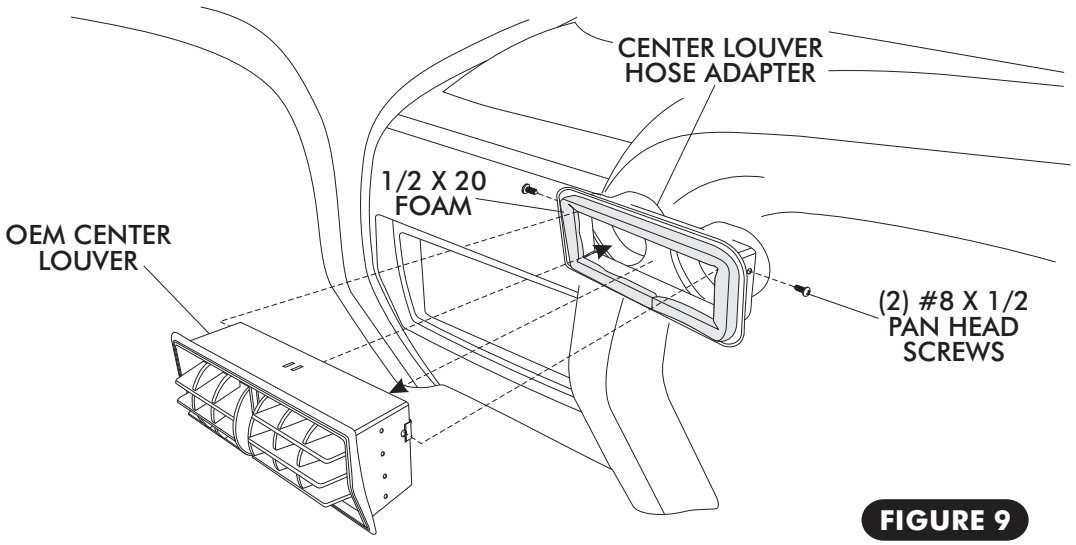
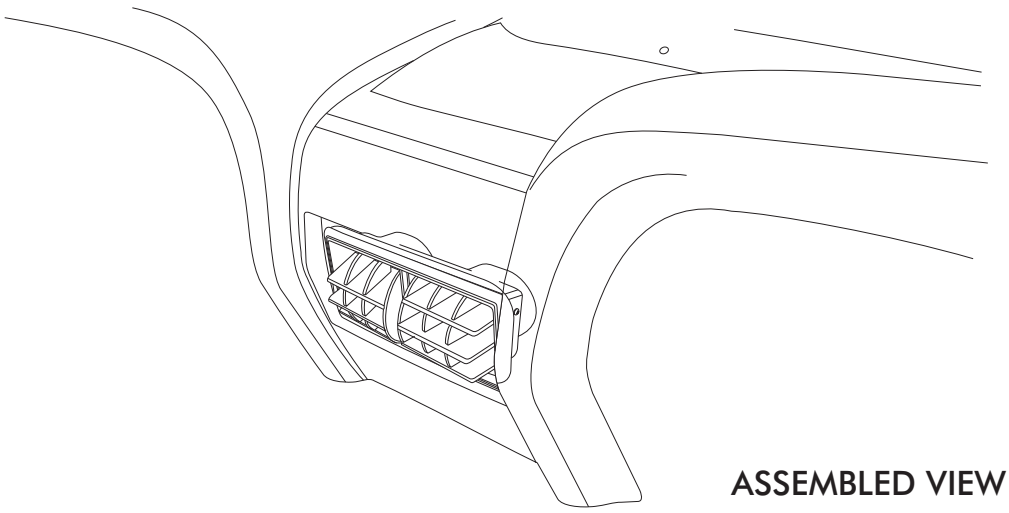


FIGURE 9



ASSEMBLED VIEW

DRAIN HOSE INSTALLATION

- ☐ LOCATE EVAPORATOR DRAIN ON BOTTOM OF EVAPORATOR CASE.
- ☐ LOCATE OEM HOLE IN FLOOR BOARD AND INSTALL 1 1/4 OD X 11/16 ID GROMMET SEE FIGUE 10.
- ☐ INSTALL DRAIN HOSE TO BOTTOM OF EVAPORATOR UNIT AND ROUTE THROUGH FIREWALL. SEE FIGURE 10.

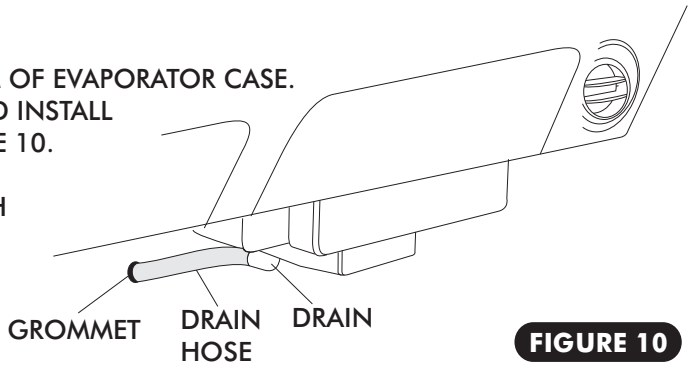


FIGURE 10

LUBRICATING O-RINGS

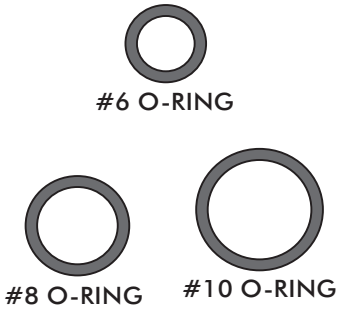
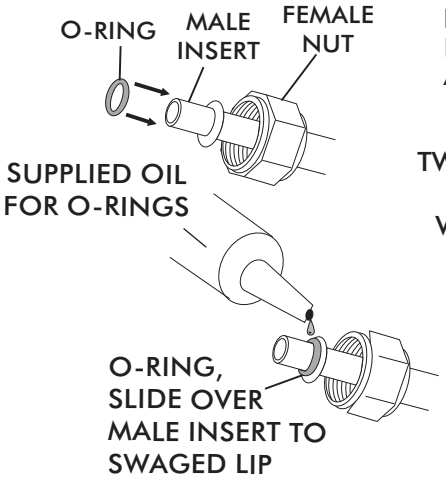
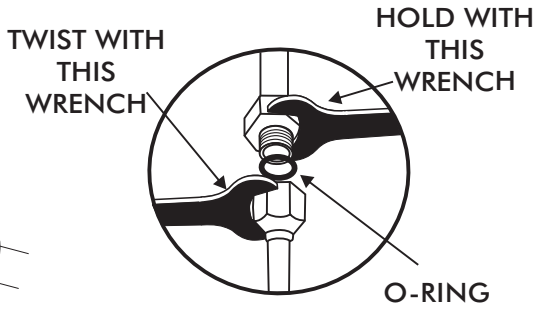


FIGURE 11



FOR A PROPER SEAL OF FITTINGS: INSTALL SUPPLIED O-RINGS AS SHOWN AND LUBRICATE WITH SUPPLIED OIL.



STANDARD HOSE KIT

☐ LOCATE THE #8 COMPRESSOR A/C HOSE. LUBRICATE (2) #8 O-RINGS (SEE FIGURE 11, ABOVE) AND CONNECT THE 45° FITTING TO THE #8 DISCHARGE PORT ON THE COMPRESSOR. ROUTE THE STR FEMALE w/ 134a SERVICE PORT FITTING TO THE #8 CONDENSER HARDLINE COMING THROUGH THE RADIATOR CORE SUPPORT. SEE FIGURE 13, PAGE 14. TIGHTEN EACH FITTING CONNECTION AS SHOWN IN FIGURE 11 ABOVE.

☐ LOCATE THE #10 COMPRESSOR A/C HOSE. LUBRICATE (2) #10 O-RINGS AND CONNECT THE 90° FEMALE w/ 134a SERVICE PORT FITTING TO THE #10 SUCTION PORT ON THE COMPRESSOR, ROUTE THE 135° FEMALE FITTING TO THE #10 EVAPORATOR HARDLINE COMING THROUGH THE FIREWALL. SEE FIGURES 12, PAGE 13 & FIGURE 13, PAGE 14. TIGHTEN EACH FITTING CONNECTION AS SHOWN IN FIGURE 11 ABOVE.
(NOTE: WRAP THE #10 FITTING CONNECTIONS WITH PRESS TAPE. SEE FIGURE 12, PAGE 13 & FIGURE 13, PAGE 14.

☐ LOCATE THE #6 EVAP/DRIER A/C HOSE. LUBRICATE (2) #6 O-RINGS AND CONNECT THE STR FEMALE FITTING TO THE #6 DRIER HARDLINE COMING THROUGH THE RADIATOR CORE SUPPORT. ROUTE THE 90° FEMALE FITTING TO THE #6 EVAPORATOR HARDLINE COMING THROUGH THE FIREWALL. SEE FIGURES 12, PAGE 13 & FIGURE 13, PAGE 14. TIGHTEN EACH FITTING CONNECTION AS SHOWN IN FIGURE 11, ABOVE.

☐ USE (6) TIE WRAPS TO SECURE THE #6 A/C HOSE TO THE EXPORT BRACE AS SHOWN IN FIGURE 13, PAGE 14.

MODIFIED A/C HOSE KIT

☐ REFER TO SEPARATE INSTRUCTIONS INCLUDED WITH MODIFIED HOSE KIT.

HEATER HOSE & HEATER CONTROL VALVE INSTALLATION

☐ ROUTE A PIECE OF HEATER HOSE FROM THE WATER PUMP TO THE HEATER LINE COMING THROUGH THE FIREWALL AS SHOWN IN FIGURE 12, BELOW. SECURE USING HOSE CLAMPS.

☐ ROUTE A PIECE OF HEATER HOSE FROM THE INTAKE TO THE HEATER LINE COMING THROUGH THE FIREWALL AS SHOWN IN FIGURE 12 BELOW. NOTE: INSTALL HEATER CONTROL VALVE IN-LINE WITH INTAKE MANIFOLD (PRESSURE SIDE) HEATER HOSE, SECURE USING HOSE CLAMPS AS SHOWN IN FIGURE 12 BELOW. ***NOTE PROPER FLOW DIRECTION***.)

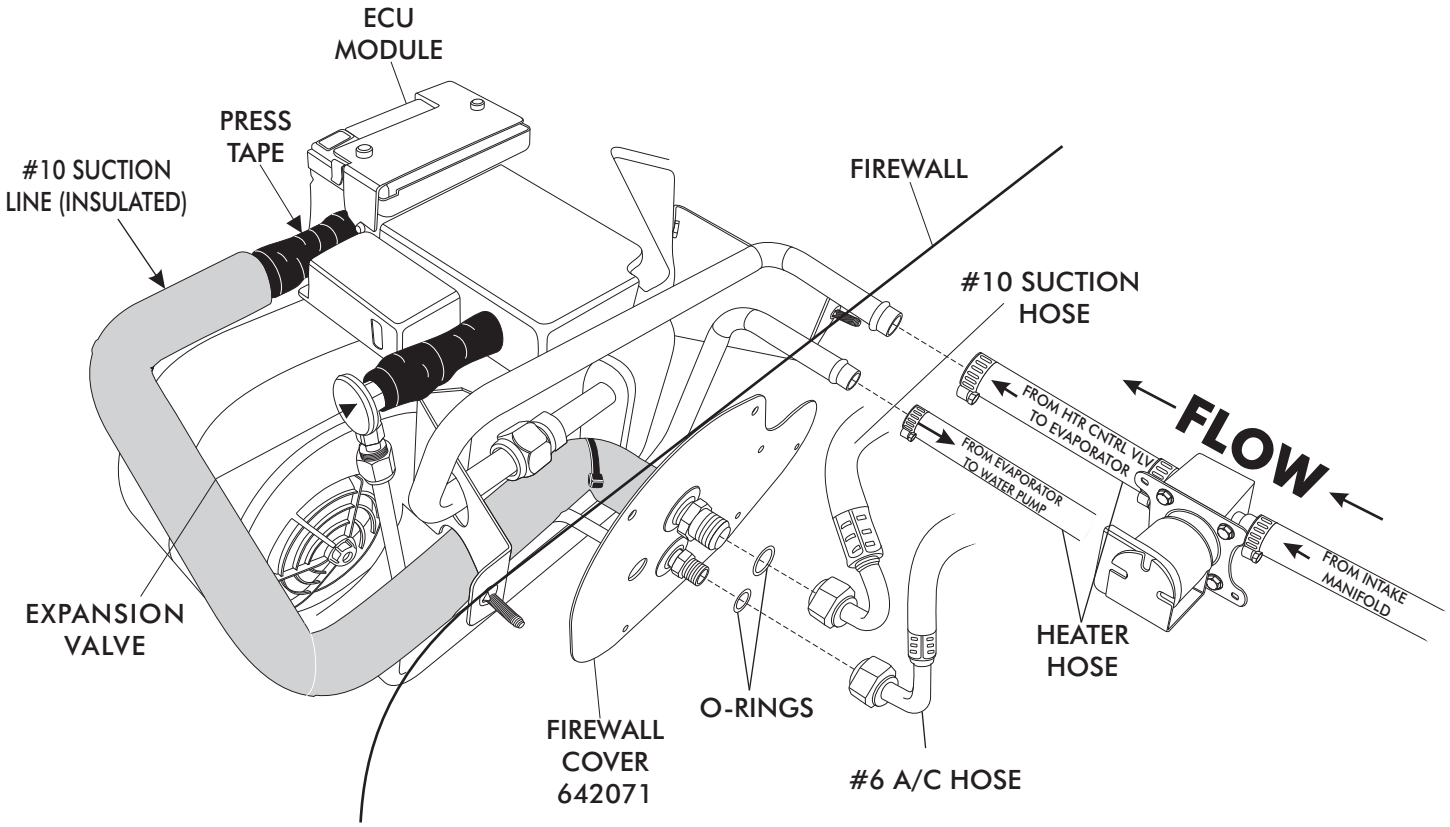


FIGURE 12

AC & HEATER HOSE ROUTING

NOTE: VINTAGE AIR SYSTEMS REQUIRE
(2) 5/8 HOSE NIPPLES (NOT SUPPLIED)

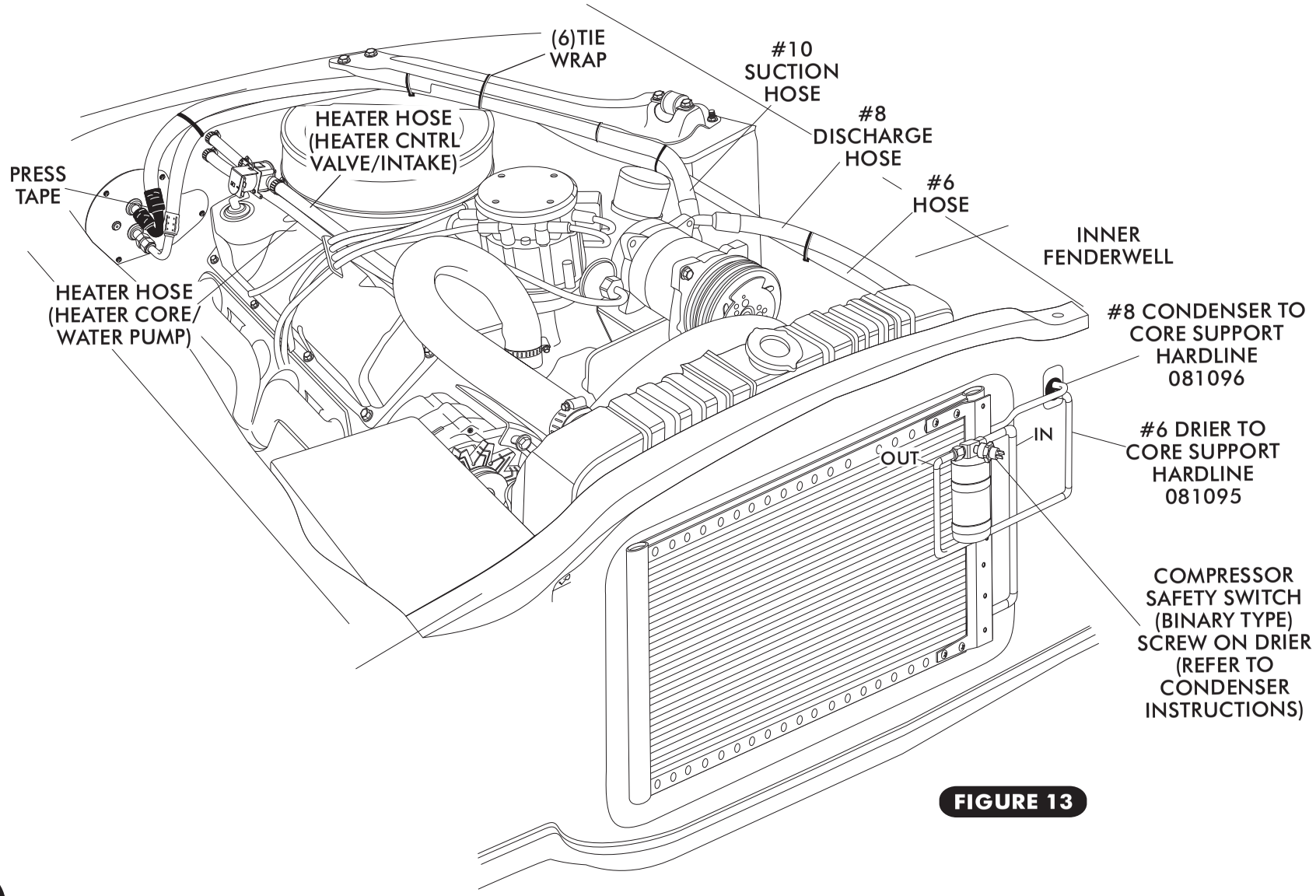

(6)TIE WRAP
#10 SUCTION HOSE
#8 DISCHARGE HOSE
#6 HOSE
INNER FENDERWELL
HEATER HOSE (HEATER CNTRL VALVE/INTAKE)
PRESS TAPE
HEATER HOSE (HEATER CORE/ WATER PUMP)
#8 CONDENSER TO CORE SUPPORT HARDLINE 081096
IN
OUT
#6 DRIER TO CORE SUPPORT HARDLINE 081095
COMPRESSOR SAFETY SWITCH (BINARY TYPE) SCREW ON DRIER (REFER TO CONDENSER INSTRUCTIONS)

FIGURE 13

FINAL STEPS

- ☐ INSTALL DUCT HOSES AS SHOWN IN FIGURE 15, PAGE 16
- ☐ ROUTE A/C WIRES THROUGH 3/8 GROMMENT AS SHOWN ON FIGURE 14a (12 VOLT/ GROUND/ BINARY SWITCH/ HEATER VALVE).
- ☐ INSTALL CONTROL PANEL ASM.
- ☐ PLUG THE WIRING HARNESS IN THE ECU MODULE ON SUB CASE AS SHOWN IN FIGURE 15, PAGE 16 (WIRE ACCORDING TO WIRING DIAGRAM ON PAGE 18 AND 19)
- ☐ GLOVE BOX INSTALLATION (SEE FIGURE 14)
- ☐ REINSTALL ALL PREVIOUSLY REMOVED ITEMS (BATTERY).
- ☐ FILL RADIATOR WITH AT LEAST A 50/50 MIXTURE OF APPROVED ANTIFREEZE AND DISTILLED WATER.IT IS THE OWNER'S RESPONSIBILITY TO KEEP THE FREEZE PROTECTION AT THE PROPER LEVEL FOR THE CLIMATE IN WHICH THE VEHICLE IS OPERATED. FAILURE TO FOLLOW ANTIFREEZE RECOMMENDATIONS WILL CAUSE HEATER CORE TO CORRODE PREMATURELY AND POSSIBLY BURST IN AC MODE AND/OR FREEZING WEATHER, VOIDING YOUR WARRANTY.
- ☐ DOUBLE CHECK ALL FITTINGS, BRACKETS AND BELTS FOR TIGHTNESS.
- ☐ VINTAGE AIR RECOMMENDS THAT ALL AC SYSTEMS BE SERVICED BY A CERTIFIED AUTOMOTIVE AIR CONDITIONING TECHNICIAN.
- ☐ EVACUATE THE SYSTEM FOR A MINIMUM OF 45 MINUTES PRIOR TO CHARGING AND LEAK CHECK PRIOR TO SERVICING.
- ☐ CHARGE THE SYSTEM TO THE CAPACITIES STATED ON THE INFORMATION PAGE (PAGE 4) OF THIS INSTRUCTION MANUAL.
- ☐ SEE OPERATION OF CONTROLS PROCEDURES PAGE 20.

GLOVE BOX INSTALLATION

- ☐ INSTALL GLOVE BOX WITH OEM SCREWS. SEE FIGURE 14.

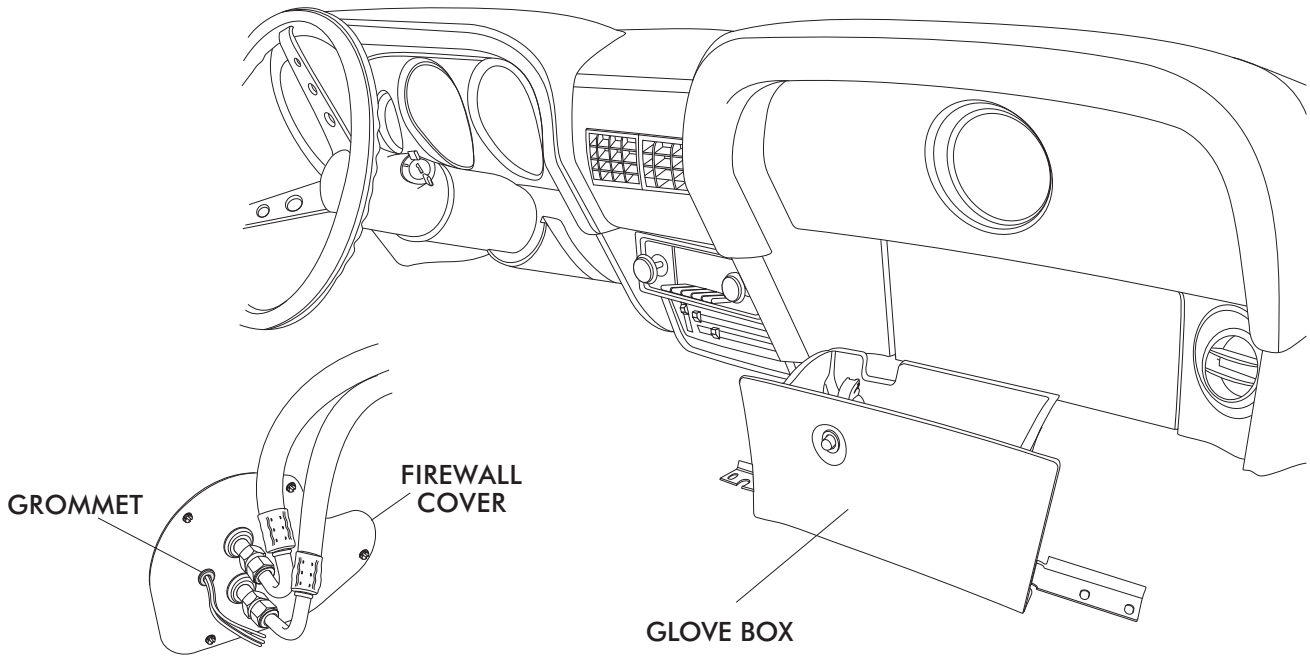


FIGURE 14a

FIGURE 14

DUCT HOSE ROUTING

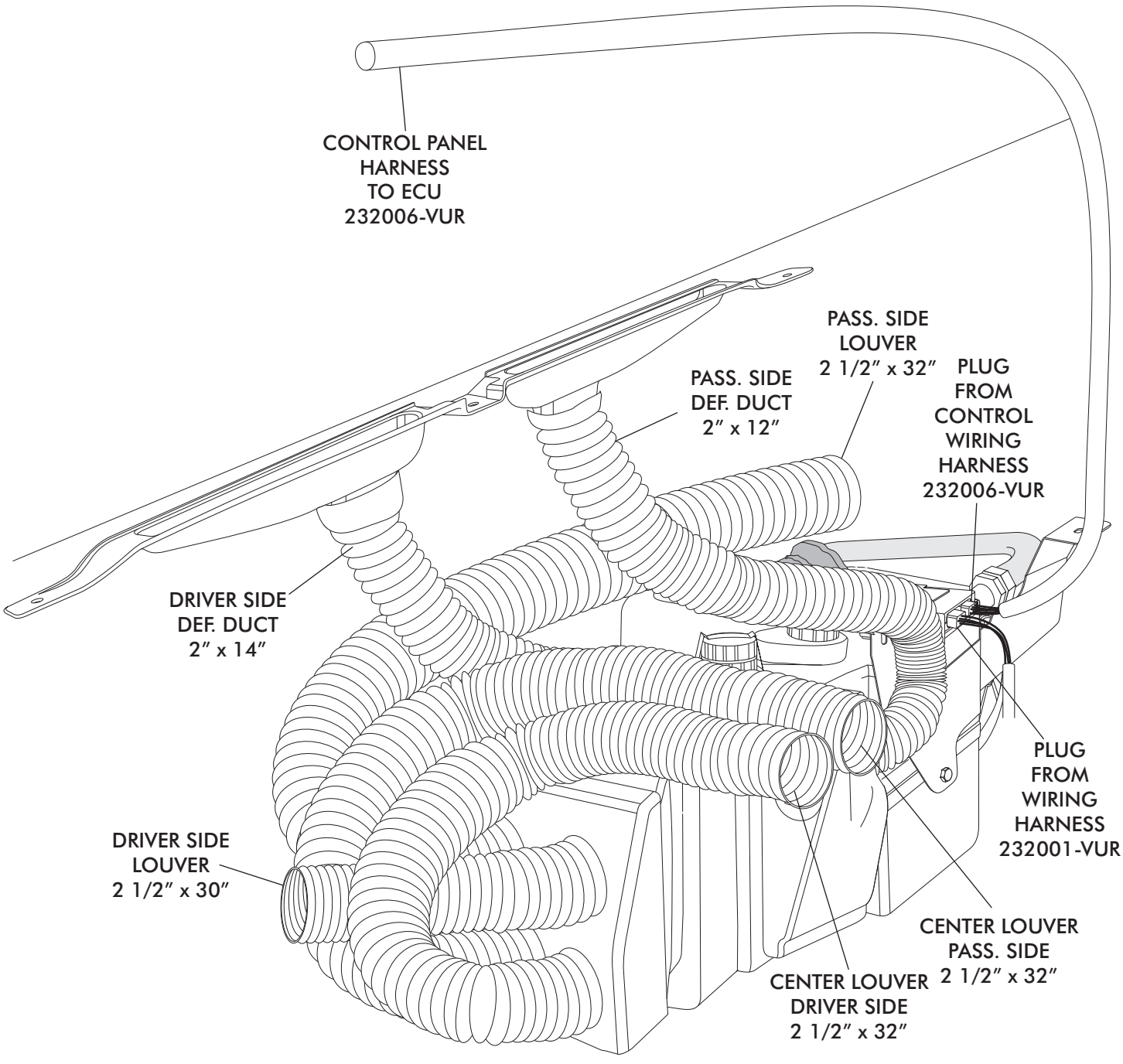

CONTROL PANEL HARNESS TO ECU 232006-VUR
PASS. SIDE LOUVER 2 1/2" x 32"
PASS. SIDE DEF. DUCT 2" x 12"
PLUG FROM CONTROL WIRING HARNESS 232006-VUR
DRIVER SIDE DEF. DUCT 2" x 14"
PLUG FROM WIRING HARNESS 232001-VUR
DRIVER SIDE LOUVER 2 1/2" x 30"
CENTER LOUVER PASS. SIDE 2 1/2" x 32"
CENTER LOUVER DRIVER SIDE 2 1/2" x 32"

FIGURE 15

EVAPORATOR HARD LINE INSTALLATION

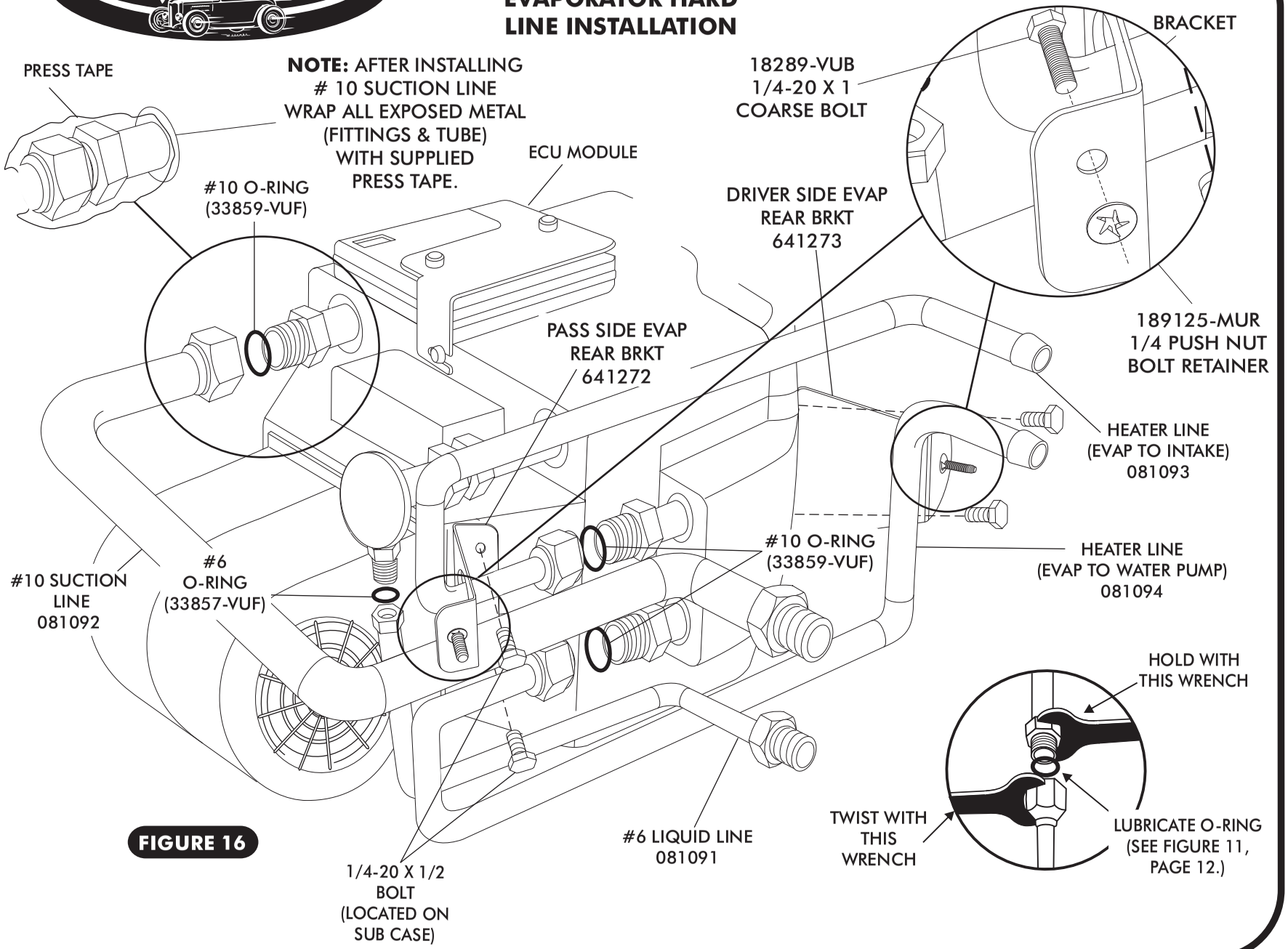
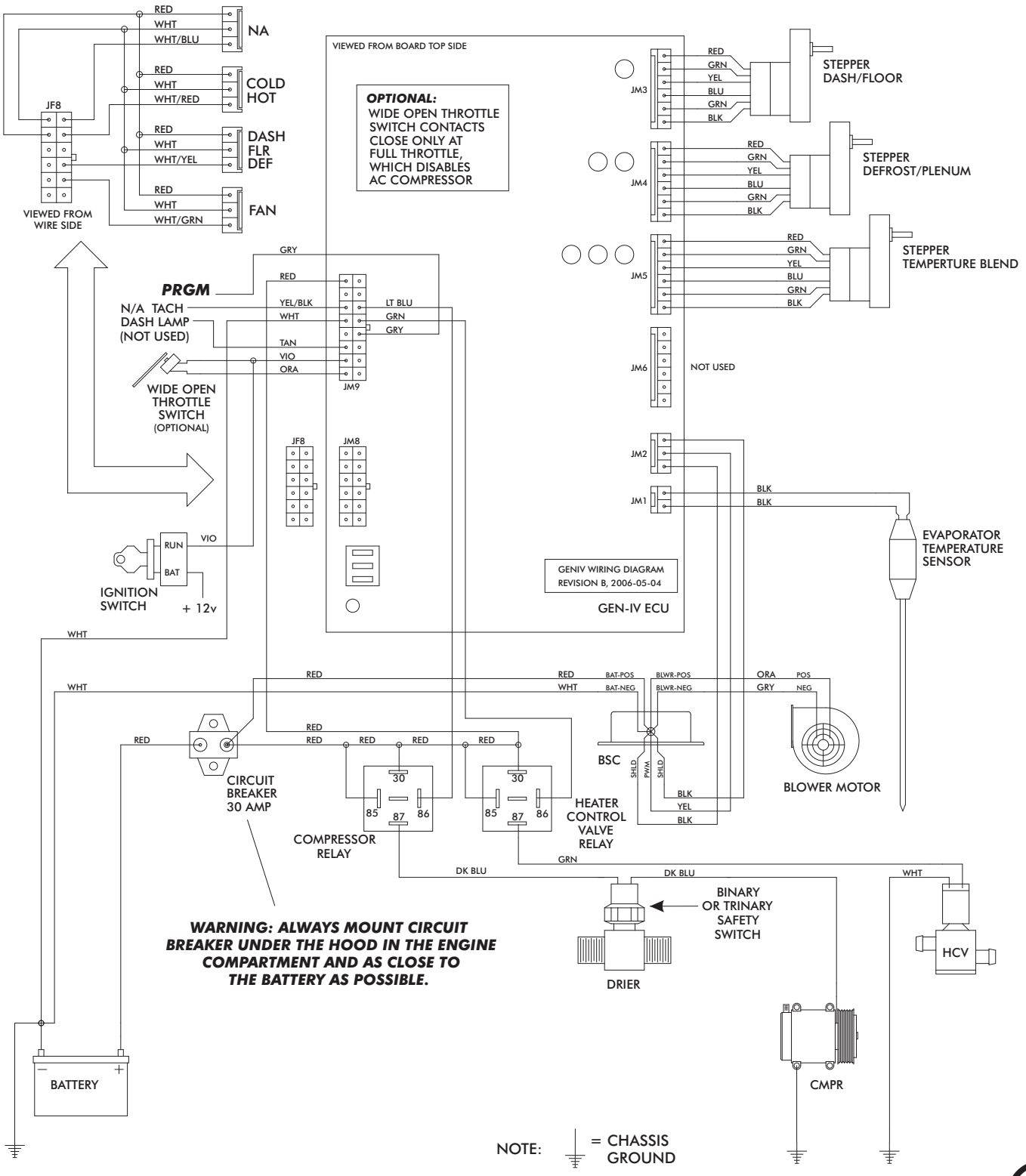
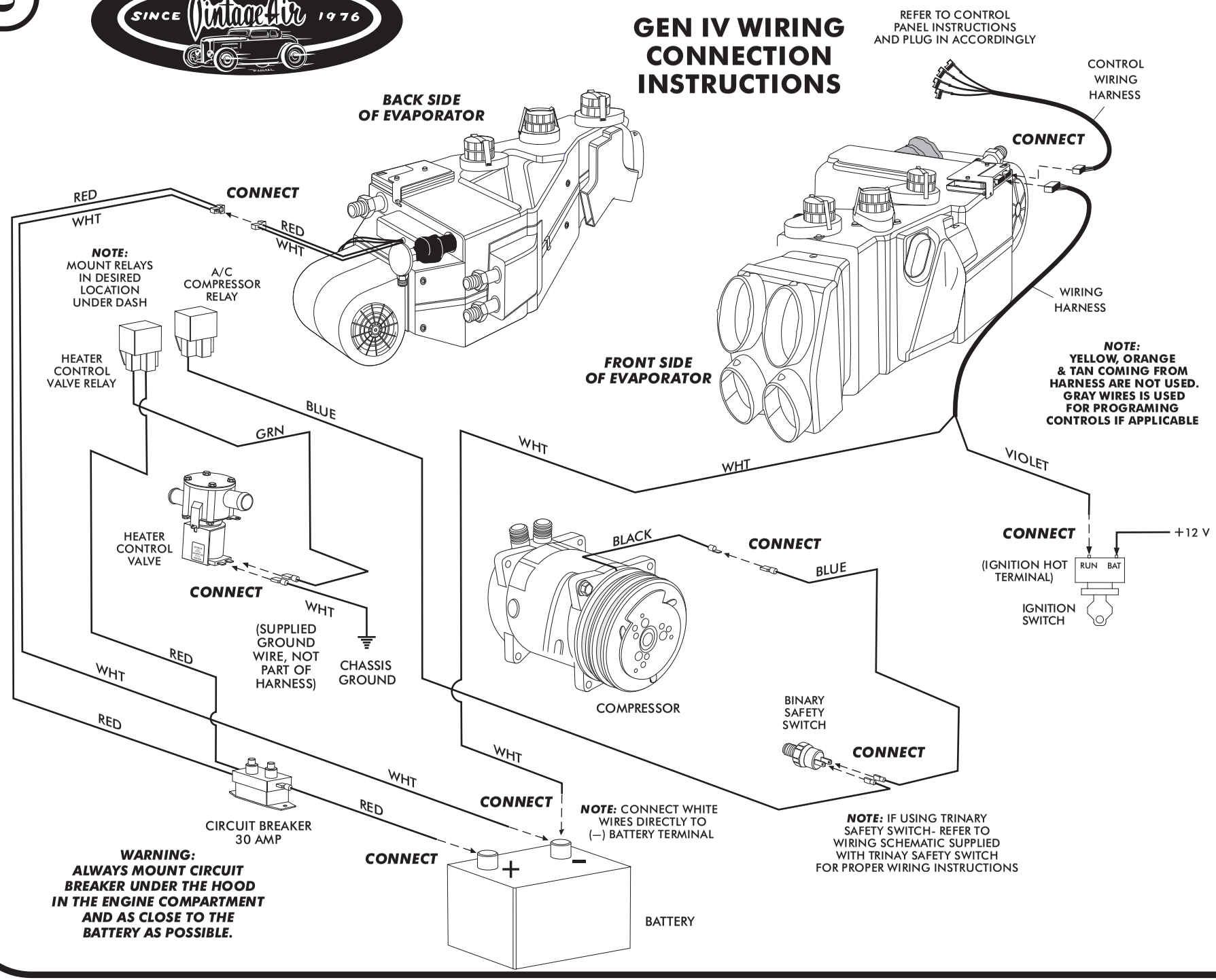

PRESS TAPE
NOTE: AFTER INSTALLING # 10 SUCTION LINE WRAP ALL EXPOSED METAL (FITTINGS & TUBE) WITH SUPPLIED PRESS TAPE.
ECU MODULE
#10 O-RING (33859-VUF)
18289-VUB 1/4-20 X 1 COARSE BOLT
BRACKET
DRIVER SIDE EVAP REAR BRKT 641273
189125-MUR 1/4 PUSH NUT BOLT RETAINER
PASS SIDE EVAP REAR BRKT 641272
HEATER LINE (EVAP TO INTAKE) 081093
#10 O-RING (33859-VUF)
HEATER LINE (EVAP TO WATER PUMP) 081094
#10 SUCTION LINE 081092
#6 O-RING (33857-VUF)
HOLD WITH THIS WRENCH
TWIST WITH THIS WRENCH
LUBRICATE O-RING (SEE FIGURE 11, PAGE 12.)
#6 LIQUID LINE 081091
1/4-20 X 1/2 BOLT (LOCATED ON SUB CASE)

FIGURE 16

WIRING DIAGRAM



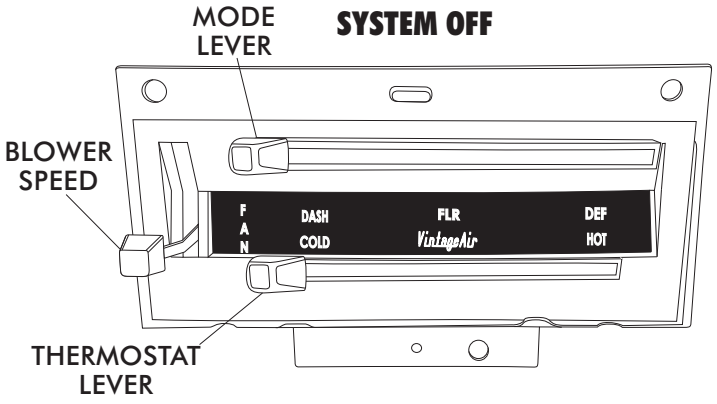
GEN IV WIRING CONNECTION INSTRUCTIONS



OPERATION OF CONTROLS

NOTE: WHEN BATTERY POWER IS FIRST CONNECTED TO THE ECU, THE COMPUTER GOES THROUGH AN INITIALIZATION SEQUENCE. THIS INITIALIZATION MAY TAKE UP TO 30 SECONDS. DURING INITIALIZATION THE BLOWER WILL NOT OPERATE, BUT THE DOORS INSIDE THE UNIT WILL BE OPERATING. A LOW BATTERY OR DISCONNECTING THE BATTERY MAY ALSO TRIGGER A RE-INITIALIZATION. DURING START UP, A LOW BATTERY MAY DROP BELOW 7 VOLTS, TRIGGERING RE-INITIALIZATION.

SYSTEM OFF

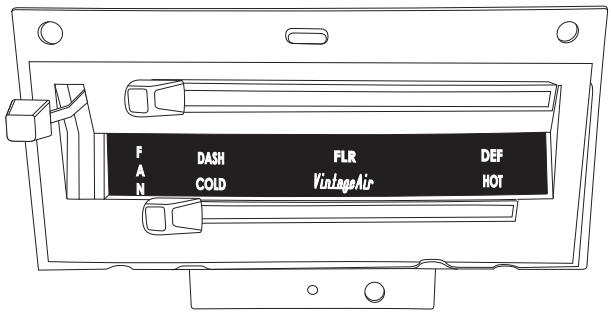


BLOWER SPEED
THIS LEVER CONTROLS THE BLOWER SPEED, FROM OFF TO HI

MODE LEVER
SLIDE THE LEVER TO THE "DASH" POSITION

THERMOSTAT LEVER
IN A/C MODE SLIDE THE THERMOSTAT LEVER ALL THE WAY LEFT TO THE COLD POSITION, FOR MAXIMUM COOLING (SLIDE LEVER LEFT OR RIGHT TO ADJUST DESIRED TEMPERATURE)

A/C MODE

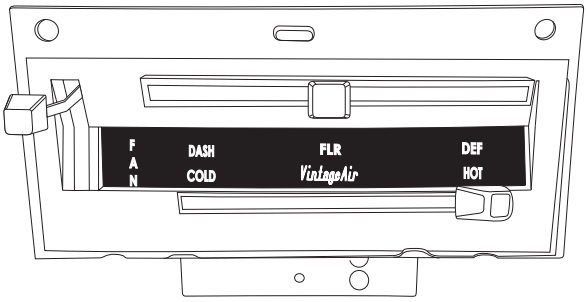


BLOWER SPEED
SLIDE LEVER UP TO DESIRED BLOWER SPEED, FROM OFF TO HI

MODE LEVER
SLIDE THE LEVER TO THE "DASH" POSITION

THERMOSTAT LEVER
IN A/C MODE SLIDE THE THERMOSTAT LEVER ALL THE WAY LEFT TO THE COLD POSITION TO ENGAGE COMPRESSOR, FOR MAXIMUM COOLING (SLIDE LEVER LEFT OR RIGHT TO ADJUST DESIRED TEMPERATURE)

HEAT MODE

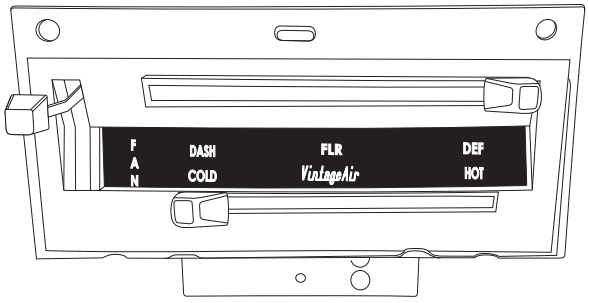


BLOWER SPEED
SLIDE LEVER UP TO DESIRED BLOWER SPEED, FROM OFF TO HI

MODE LEVER
SLIDE THE LEVER TO THE "FLR" POSITION

THERMOSTAT LEVER
IN HEAT MODE SLIDE THE THERMOSTAT LEVER ALL THE WAY RIGHT TO THE HOT POSITION, FOR MAXIMUM HEATING ((SLIDE LEVER LEFT OR RIGHT TO ADJUST DESIRED TEMPERATURE)

DEFROST/ DE-FOG MODE



BLOWER SPEED
SLIDE LEVER UP TO DESIRED BLOWER SPEED, FROM OFF TO HI

MODE LEVER
SLIDE THE LEVER TO THE "DEF" POSITION

THERMOSTAT LEVER
IN DEF MODE SLIDE THE THERMOSTAT LEVER ALL THE WAY LEFT TO THE COLD POSITION TO ENGAGE COMPRESSOR. FOR MAXIMUM COOLING (SLIDE LEVER LEFT OR RIGHT TO ADJUST DESIRED TEMPERATURE)

TROUBLE SHOOTING INFORMATION

SYMPTOM	CONDITION	CHECKS	ACTIONS	NOTES
1. BLOWER STAYS ON HIGH SPEED WHEN IGNITION IS ON	NO OTHER FUNCTIONS WORK	CHECK FOR DAMAGED PINS OR WIRES IN CONTROL HEAD PLUG.	VERIFY ALL PINS ARE INSERTED INTO PLUG. INSURE NO PINS ARE BENT OR DAMAGED IN ECU.	
		CHECK FOR DAMAGED GROUND WIRE (WHITE) IN CONTROL HEAD HARNESS.	VERIFY CONTINUITY TO CHASSIS GROUND WITH WHITE CONTROL HEAD WIRE AT VARIOUS POINTS.	LOSS OF GROUND ON THIS WIRE WILL RENDER CONTROL HEAD INOPERABLE
	ALL OTHER FUNCTIONS WORK	CHECK FOR DAMAGED BLOWER SWITCH OR POT AND ASSOCIATED WIRING.		SEE BLOWER SWITCH CHECK PROCEDURE (CONTACT VINTAGE AIR TECH SUPPORT)
BLOWER STAYS ON HIGH SPEED WHEN IGNITION IS ON OR OFF.		UN-PLUG 3 WIRE BSC CONTROL CONNECTOR FROM ECU. IF BLOWER SHUTS OFF, ECU IS EITHER IMPROPERLY WIRED, OR DAMAGED.	BE SURE SMALL, 20GA. WHITE GROUND WIRE IS CONNECTED TO THE BATTERY GROUND POST. IF IT IS, REPLACE ECU.	
		UN-PLUG 3 WIRE BSC CONTROL CONNECTOR FROM ECU. IF BLOWER STAYS RUNNING, THE BSC IS EITHER IMPROPERLY WIRED, OR DAMAGED.	CHECK TO INSURE THAT NO BSC WIRING IS DAMAGED OR SHORTED TO VEHICLE GROUND. THE BSC OPERATES THE BLOWER BY GROUND SIDE PWM SWITCHING. THE POSITIVE WIRE TO THE BLOWER WILL ALWAYS BE HOT. IF THE "GROUND" SIDE OF THE BLOWER IS SHORTED TO CHASSIS GROUND, THE BLOWER WILL RUN ON HI.	
			REPLACE BSC. (THIS WILL REQUIRE EVAPORATOR TO BE REMOVED FROM VEHICLE.)	NO OTHER PART REPLACEMENTS SHOULD BE NECESSARY.
2. COMPRESSOR WILL NOT TURN ON (ALL OTHER FUNCTIONS WORK)	SYSTEM IS NOT CHARGED	SYSTEM MUST BE CHARGED FOR COMP. TO ENGAGE.	CHARGE SYSTEM OR BYPASS PRESSURE SWITCH .	***DANGER- NEVER BYPASS SAFETY SWITCH WITH ENGINE RUNNING, SERIOUS INJURY CAN RESULT***
	SYSTEM IS CHARGED	CHECK FOR FAULTY A/C POT OR ASSOC. WIRING	CHECK CONTINUITY TO GROUND ON WHITE CONTROL HEAD WIRE. CHECK FOR 5V ON RED CONTROL HEAD WIRE.	TO CHECK FOR PROPER POT FUNCTION, CHECK VOLTAGE AT WHITE/BLUE WIRE. VOLTAGE SHOULD BE BETWEEN 0 AND 5V, AND WILL VARY WITH POT LEVER POSITION.
		CHECK FOR DISCONNECTED OR FAULTY THERMISTOR.	CHECK TWO PIN CONNECTOR AT ECU HOUSING.	DISCONNECTED OR FAULTY THERMISTOR WILL CAUSE COMPRESSOR TO BE DISABLED.
		(CHECK FOR FAULTY PRESSURE SWITCH)	CHECK CONTINUITY ACROSS SWITCH	REPLACE SWITCH
3. COMPRESSOR WILL NOT TURN OFF (ALL OTHER FUNCTIONS WORK)		CHECK FOR FAULTY A/C POT OR ASSOC. WIRING	REPAIR/REPLACE POT/CONTROL WIRING	RED WIRE @ A/C POT SHOULD HAVE APPROX. 5V WITH IGNITION ON. WHITE WIRE WILL HAVE CONTINUITY TO CHASSIS GROUND, WHITE/BLUE WIRE SHOULD VARY BETWEEN 0V AND 5V WHEN LEVER IS MOVED UP AND DOWN.
		CHECK FOR FAULTY A/C RELAY	REPLACE RELAY	
		FOR '55-56 CHEV. CHECK FOR PROPER PANEL CONVERSION. CONTROL LEVERS SHOULD TRAVEL TO WITHIN 1/8" OF BOTH ENDS OF THE SLOTS.	REFER TO INTSRUCTIONS "'55-56 CONTROL PANEL CONVERSION REV B 6 17 05" PDF OR 903055-PCA REV C 8/10/05 OR LATER INSRUCTION MANUAL.	EARLY INSTRUCTIONS ON '55-56 CHEV. DID NOT INCLUDE PANEL MOD PROCEEDURE FOR CONTROL WITH LOWER POT BRACKET OFFSET BACK FROM CASTING. IF LEVERS ONLY TRAVEL 2/3 TO 3/4 UP, THIS PROCEEDURE MUST BE PERFORMED
			REPLACE ECU.	

TROUBLE SHOOTING INFORMATION CONT.

4. SYSTEM WILL NOT TURN ON OR RUNS INTERMITTENTLY	WORKS WHEN ENGINE IS NOT RUNNING, SHUTS OFF WHEN ENGINE IS STARTED. (TYPICALLY EARLY GEN 4, BUT POSSIBLE ON ALL VERSIONS)	NOISE INTERFERENCE FROM EITHER IGNITION OR ALTERNATOR.	INSTALL CAPACITORS ON IGN. COIL, AND ALTERNATOR. ENSURE GOOD GROUND AT ALL POINTS.RE-LOCATE COIL AND ASSOCIATED WIRING AWAY FROM ECU AND ECU WIRING. CHECK FOR BURNED OR LOOSE PLUG WIRES.	IGNITION NOISE (RADIATED OR CONDUCTED) WILL CAUSE THE SYSTEM TO SHUT DOWN DUE TO HIGH VOLTAGE SPIKES. IF THIS IS SUSPECTED, CHECK WITH A QUALITY OSCILISCOPE. SPIKES GREATER THAN 16V WILL SHUT DOWN ECU. INSTALL A RADIO CAPACITOR AT THE POSITIVE POST OF THE IGNITION COIL (SEE RADIO CAPACITOR INSTALLATION BULLETEN). A FAULTY ALTERNATOR OR WORN OUT BATTERY CAN ALSO RESULT IN THIS CONDITION. BATTERY MUST BE IN GOOD CONDITION FOR ALTERNATOR REGULATOR TO FUNCTION PROPERLY.
	WILL NOT TURN ON UNDER ANY CONDITIONS	VERIFY CONNECTIONS ON POWER LEAD, IGNITION LEAD, AND BOTH WHITE GROUND WIRES.	CHECK FOR POSITIVE POWER AT HEATER VALVE GREEN WIRE. AND BLOWER RED WIRE. CHECK FOR GROUND ON CONTROL HEAD WHITE WIRE.	
		VERIFY BATTERY VOLTAGE IS GREATER THAN 10 VOLTS AND LESS THAN 16.	VERIFY PROPER METER FUNCTION BY CHECKING A KNOWN GOOD BATTERY'S VOLTAGE.	

5. LOSS OF MODE DOOR FUNCTION	NO MODE CHANGE AT ALL	CHECK FOR DAMAGED MODE SWITCH OR POT AND ASSOCIATED WIRING		
	PARTIAL FUNCTION OF MODE DOORS	CHECK FOR OBSTRUCTED OR BINDING MODE DOORS		TYPICALLY CAUSED BY EVAPORATOR HOUSING INSTALLED IN A BIND IN THE VEHICLE. BE SURE ALL MOUNTING LOCATIONS LINE UP AND DON'T HAVE TO BE FORCED INTO POSITION.
		CHECK FOR DAMAGED STEPPER MOTOR OR WIRING		

6. BLOWER TURNS ON AND OFF RAPIDLY	BATTERY VOLTAGE IS AT LEAST 12V	CHECK FOR AT LEAST 12V BETWEEN GREEN HEATER VALVE WIRE AND CHASSIS GROUND.	INSURE ALL SYSTEM GROUNDS AND POWER CONNECTIONS ARE CLEAN AND TIGHT.	
	BATTERY VOLTAGE IS LESS THAN 12V	CHECK FOR FAULTY BATTERY OR ALTERNATOR	CHARGE BATTERY	SYSTEM SHUTS OFF BLOWER AT 10V. POOR CONNECTIONS OR WEAK BATTERY CAN CAUSE SHUT DOWN AT UP TO 11V

7. ERATIC FUNCTIONS OF BLOWER, MODE, TEMP, ETC.		CHECK FOR DAMAGED SWITCH OR POT AND ASSOCIATED WIRING	REPAIR OR REPLACE	

8. WHEN THE IGNITION IS TURNED ON, THE BLOWER MOMENTARILY COMES ON, THEN SHUTS OFF. THIS IS WITH THE BLOWER SWITCH IN THE OFF POSITION.		THIS IS AN INDICATOR THAT THE SYSTEM HAS BEEN RE-SET. BE SURE THE RED POWER WIRE IS ON THE BATTERY POST AND NOT ON A SWITCHED SOURCE. ALSO, IF THE SYSTEM IS PULLED BELOW 7V EVEN FOR A SPLIT SECOND, THE SYSTEM WILL RE-SET.	RUN RED POWER WIRE DIRECTLY TO BATTERY.	

9. BACKLIGHTING ON CONTROL PANEL ALWAYS ON.	VINTAGE AIR SUPPLIED PANELS ONLY.	TAN WIRE IN MAIN HARNESS IS NOT CONNECTED TO 0-12V GAUGE BACK LIGHT WIRE.	CONNECT TO GAUGE BACK LIGHT WIRE (0-12V) WHICH WHICH CONTROLS DIMMING OF PANEL BACK LIGHT	TAN WIRE IS ONLY USED ON SYSTEMS WITH ENTIRE CONTROL PANEL SUPPLIED BY VINTAGE AIR.

10. BACKLIGHTING ON CONTROL PANEL ALWAYS OFF.	VINTAGE AIR SUPPLIED PANELS ONLY.	TAN WIRE IN MAIN HARNESS NOT CONNECTED.	CONNECT TO GAUGE BACK LIGHT WIRE (0-12V) WHICH WHICH CONTROLS DIMMING OF PANEL BACK LIGHT	

EVAPORATOR KIT
554170

EVAPORATOR KIT PACKING LIST

No.	QTY.	PART No.	DESCRIPTION	
1.	1	763069	69-70 MUSTANG EVAP. SUB CASE	_____
2.	1	785169	1969-70 MUSTANG w/AC GEN IV ACC. KIT	_____

CHECKED BY: _____
PACKED BY: _____
DATE: _____

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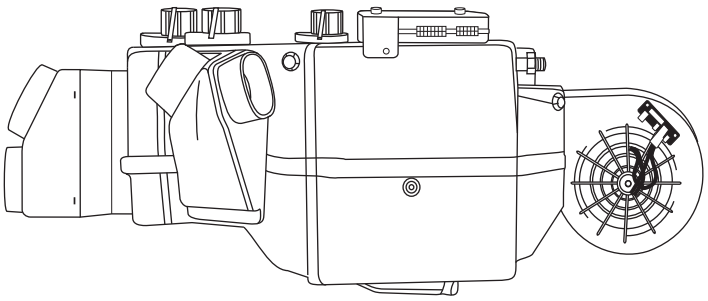

69-70 MUSTANG
EVAP. SUB CASE
763069

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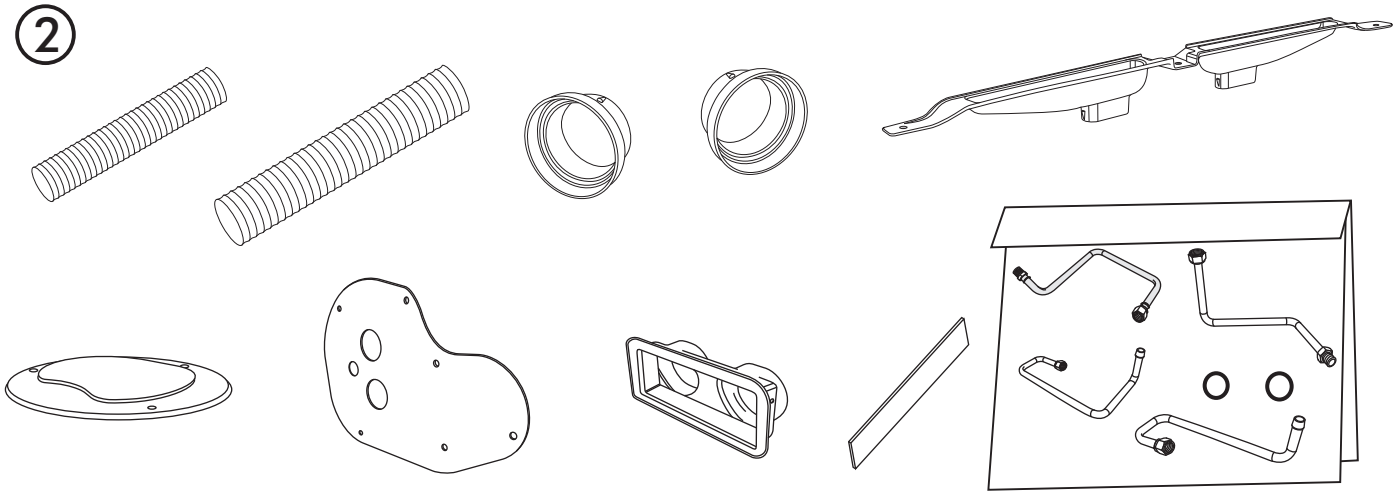

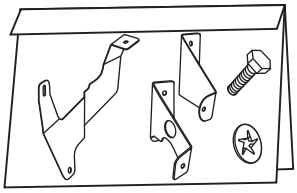

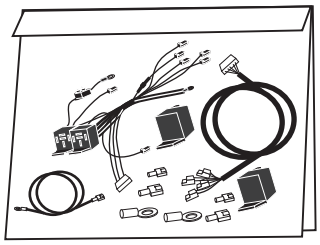

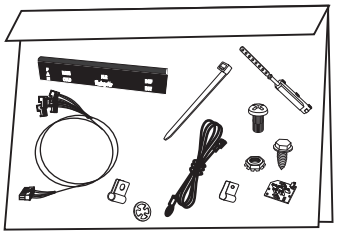

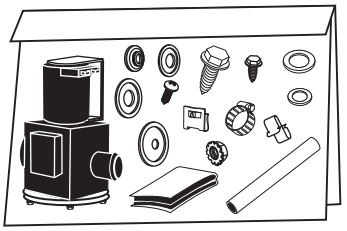

ACCESSORY KIT
785169

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REFER TO PACKING LIST FOR ACTUAL PARTS AND QUANTITIES